

REMARKS

Overview

In the Office Action dated November 14, 2003, claims 21-40 were treated as follows:

Under paragraph 1 of the Office Action, the drawings were objected to under 37 C.F.R. 1.83(a).

Under paragraph 2 of the Office Action, claims 23 and thus 24-26 were rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the enablement requirement.

Under paragraph 3 of the Office Action, claims 21, 30 and 32 were rejected under 35 U.S.C. 102(b) as being anticipated by McBain (US 3,799,413).

Under paragraph 4 of the Office Action, claims 22-24, 26, 27 and 29 were rejected under 35 U.S.C. 103(a) as being unpatentable over McBain.

Under paragraph 5 of the Office Action, claims 25 and 28 were rejected under 35 USC. 103(a) as being unpatentable over McBain as applied to claims 24 and 27, and further in view of Kawaguchi (FR 2,582,490).

Under paragraph 6 of the Office Action, claims 32 and 36-39 were rejected under 35 U.S.C. 103(a) as being unpatentable over the cited references as applied to claims 21, 27 and 29 and further in view of Mayers (US 6,168,060).

Under paragraph 7 of the Office Action, claims 33 and 40 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Under paragraph 8 of the Office Action, claims 34 and 35 were allowed, which is noted with appreciation.

In response to the above Office Action, claim 33 has been rewritten in independent form including all of the limitations of the base claim and intervening claim 32. As claim 40 is dependent on claim 33, Applicant respectfully submits that claims 33 and 40 are now in order for allowance.

Independent claim 21 has been amended to include the features that "a

corresponding pair of adjacent proximal and distal sections being joined together with a first curvature, the proximal sections of said first and said second strap portions and said shoulder portion being joined together with a second curvature, said second curvature being substantially equal but opposite to said first curvature,”

Claim 22 has been amended to further distinguish the invention from McBain by reciting *“said shoulder-engaging portion comprising a curved portion which is adapted to follow the trapezius muscle of a user, the curvature of said curved portion of said shoulder engaging portion being substantially equal but opposite to the curvature between a corresponding pair of said proximal and distal sections.”* In addition, the word “divergent” in line 3 of claim 22 has been replaced by “away” and the word “convergent” has been deleted.

Claim 23 has been amended so that the word “opposite” is replaced by “an inflexion”. The inflexion is submitted to be evident from the figures and the corresponding description.

Newly amended claim 24 provides the additional feature that the *recess has “a curvature which is generally equal and opposite to the curvature between an adjacent pair of said proximal distal portions.”*

Newly amended claim 28 introduces the further distinguishing feature that *“said shoulder-engaging portion having a cushioning pad shaped to follow the contour of trapezius muscle”*. This feature is shown in Figs. 9a to 9d.

Objection under Paragraph 1

The terms “divergent” and “convergent” have been deleted from claim 22, which now recites that the proximal sections of the strap extend “away” from the general longitudinal direction, and the distal sections extend “towards” the general longitudinal direction. Referring to Figures 2 and 3, for example, one of ordinary skill will recognize that the general longitudinal direction of the strap is the vertical direction as viewed in these figures, which, as recited in claim 21, is the direction along which the shoulder-engaging portion 13 extends. As depicted in these figures, the proximal section of each strap portion extends away from this vertical direction

(to the left in Figure 2), and the distal portion extends back towards this direction (to the right in Figure 2). Accordingly, Applicant respectfully submits that the objections under paragraph 1 of the Office Action are now rendered moot, and withdrawal of the objection is requested.

Patentability Over McBain

The invention as described by the amended claims is neither anticipated nor obvious over McBain.

McBain teaches a shoulder strap with a shoulder engaging portion 20b and first and second strap portions at the ends of the shoulder engaging portion. As is shown in Fig. 4 of McBain, the shoulder engaging portion is defined by a pair of substantially parallel and longitudinally extending straight edges (25b, 26b). Thus, the shoulder engaging portion of McBain's strap is substantially linear.

In the present invention, it is evident from the figures and the corresponding descriptions that the middle portion (as defined by the proximal sections of the first and second strap portions and the shoulder engaging portion) of the strap is curved and with a curvature which is substantially equal but opposite to the curvature formed between a corresponding pair of adjacent proximal and distal sections of a strap portion. A shoulder carrying strap with such curvature inflexion characteristics facilitates a very effective diversion of force to prevent slippage off the shoulder. In addition, the second curvature at the middle portion of the strap (which is not present in McBain) has the effect of amplifying or emphasizing the diversion of force towards the body centerline which is not taught by McBain. Furthermore, the same curvature inflexion characteristics also facilitate easy reversion of the strap between a single carrying strap or a double carrying strap and between straps of dissimilar frictional characteristics. Such a feature is hardly conceivable by reading McBain. In essence, McBain's strap does not have such curvature inflexion characteristics, nor the benefits provided by this curvature inflexion.

McBain (3,799,413), in view of Kawaguchi (2,582,490) or others

Neither McBain, Kawaguchi nor others teaches a carrying strap with such curvature inflexion characteristics. Applicant respectfully submits that the invention as characterized by the current claims is new and non-obvious over the cited prior art, whether alone, in combination, or in view of the other cited reference.

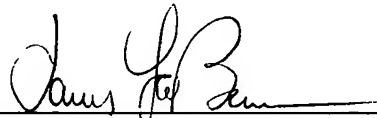
Specifically, the curvature inflexion characteristics of the present invention in combination with the surfaces of dissimilar frictional characteristics facilitate ready conversion of a shoulder carrying straps of dissimilar frictional characteristics while retaining the same force diversion characteristics. Such features, as set out in claims 25 and 28, are also hardly conceived by the any of the prior art.

Similarly, the inclusion of fastening means as set out in claims 32 and 36-39 facilitates convenient conversion of straps of the present invention between single and double carrying straps. Such features are also a synergetic result of the improvements of the present inventor which are, again, hardly conceivable by any of the prior art.

In view of the foregoing, it is respectfully submitted that all pending claims are patentable over the cited references. Reconsideration and withdrawal of the rejections and objections are respectfully requested.

Respectfully submitted,

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